

UTAH VHF SOCIETY  
11560 SANDY CREEK DRIVE  
SANDY, UTAH 84094

DOCKET FILE COPY ORIGINAL

June 14, 1994

In the matter of:

Allocation of Spectrum Below  
5 GHZ Transferred from  
Federal Government Use

ET Docket No. 94-32

NOTICE OF INQUIRY

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
Washington, DC 20554

FCC MAIL ROOM

Re: Reallocation from government service to non-government service  
of spectrum shared with the Amateur Radio Service.

Dear Mr. Caton,

The Utah VHF Society is a Amateur Radio organization in the State of Utah that represents over 422 Amateur Radio Operators and over 520 Frequency Coordination Assignments for fixed relay systems. It was formed in 1968 to provide frequency coordination for repeater operations. We are responding to your request to comment on the issue of how your proposal will directly affect us.

The Utah VHF Society is recognized as the official frequency coordinator for all Amateur repeater sub-bands in the State of Utah. We publish a directory that lists all repeaters in the state of Utah. Our Database is on file with the American Radio Relay League, Inc. (ARRL).

2.3 to 2.45 GHZ BAND PRESENT AND FUTURE USEAGE

Due to congestion in the lower UHF Bands, we intend to implement new frequency assignments in this band. We have amateur stations that are active with weak signal amateur satellite, Amateur television, point to point, experimentation and moonbounce communications.

We have several wide band point to point terrestrial relay systems planned for 1994 to implement linking strategic mountain top repeater sites together. Microwave equipment has just become available from retired commercial services to be retuned to the amateur service. This will allow connecting voice repeaters, packet network stations and other amateur links together across the state. These duplex link systems need at least 50 Mhz separation between transmitter and receiver to operate properly.

No. of Copies rec'd  
List A B C D E

0+9

## PUBLIC SAFETY CONCERNS

The amateur radio service is used to provide emergency communication services during periods of natural disasters. After the Northridge, Calif. earthquake in January 1994, commercial communications circuits were severed and severely overloaded. The Church of Jesus Christ of Latter Day Saints in Salt Lake City, Utah needed to determine the status of their Bishops storehouse in Colton, California. Amateur radio was the only means available after the earthquake to exchange communications of the status and needs of the bishops central storehouse.

Enclosed is a letter from Church Headquarters thanking the Amateur radio system owners and operators for this valuable service.

The Radio system used was the UHF Cactus Radio Intertie system that links Utah into California. Telephone systems were blocked. Only the UHF Linked Amateur radio systems were able to send the needed messages!

## THE NTIA REPORT AND TITLE IV

The NTIA did not contact our organization about any existing or planned uses of the band. We feel that we should have been contacted by the NTIA to determine our existing and planned uses of the 2.3 to 2.45 Ghz band. We are a user of the band even though we are a secondary user. We have been contacted before by both the FCC and FAA on separate issues so we are easy to find.

Title V states that one of its goals is to provide for introduction of new services and enhancement of existing services. We are seeing an increased demand for frequency assignments in the 2.3 to 2.45 Ghz Band. We need to see the Amateur Service enhanced.

## SHARING WITH COMMERCIAL SERVICES

The Amateur Radio Service, as a secondary user, has successfully co-existed with the Federal Government Service. The reason is because the use of this band in the State of Utah by the Federal Government Services has been light.

Sharing this service with a Commercial Service will not work out. First of all, the commercial service will have paid the price to obtain the spectrum and will not tolerate any interference into his system. He is there to generate revenue and interference will reduce that revenue. The Amateur Service will not be useable in this situation. Sharing with the new commercial service will be impractical.

## COMMENTS ON SPECIFIC QUESTIONS RAISED BY THE NOTICE OF INQUIRY

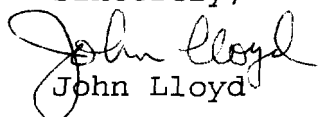
a) The amateur radio spectrum identified, 2.3-2.45 Ghz will provide a public service benefit that cannot be served by any commercial operation of the band.

- b) The only restrictions to be placed are not to allow any commercial service in the 2.3-2.45 Ghz Band.
- c) Any reallocation will disrupt the amateur service. The 2400-2402 Mhz portion of the band is used for weak signal operations only.
- d) New services will not be able to share the 2.3-2.45 Ghz band for reasons previously outlined.
- e) There is an interference potential by ISM to commercial users in the 2402-2417 Mhz band. Interference will be stronger in Urban areas. Part 15 devices will cause interference to commercial users and commercial users will cause interference to Part 15 devices. This is not a good idea.
- f) The proposed reallocation will reduce or eliminate the public safety uses by the amateur service. We plan to use Point to point microwave links between strategic mountain top radio sites to connect VHF and UHF Voice repeaters and packet node stations together into a statewide network for amateur radio.
- g) The proposed new service does not appear to be interference free to be used by the biomedical telemetry devices. ISM devices and sporadic uses of part 15 devices will have a high interference level into the biomedical telemetry devices.
- h) It would be advantageous to delay licensing of the 2390-2400 Mhz and 2402-2417 Mhz band so that the amateur service could then become the primary user. The 2300-2310 Mhz band could also be reallocated to primary status for the amateur service. Loss of these band segments will eliminate most of the uses of this band by the amateur service.

#### CONCLUSION

- 1) Reallocation of spectrum in the 2.3-2.45 Ghz band from government to commercial use will disrupt the present amateur activities in this band.
- 2) The NTIA report did not research the actual and future use of the 2.3-2.45 Ghz band by the amateur service.
- 3) If the Amateur service is displaced, suitable spectrum needs to be made available. This is mandated by Title IV.
- 4) The 2300-2310, 2390-2400 and 2402-2417 Mhz bands should be assigned to the amateur users as primary status.

Sincerely,

  
John Lloyd

Utah VHF Society Frequency Coordinator

THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY  
SAINTS

19 February 1994

WELFARE SERVICES

Mr. Denny Chase, KA6KTA  
Manager, Cactus Radio Intertie System  
P.O. Box 711511  
Santee, CA 92072

Dear Denny,

I want to take this opportunity to express our sincere thanks and appreciation for the use of the DARS/Cactus Radio Intertie System on the morning of 17 January 1994 (morning of the California Earthquake)

The truth of the matter being that our (Mormon) LDS Emergency Response Radio System station located at the Colton Bishops Central Storehouse did not come on the air, as per our standing SOPs in such a situation, We did not know why and it was impossible to call into Southern California via landline from our Headquarters station in Salt Lake City, Utah. We didn't know but what the Colton station had been knocked out because of the earthquake. We simply didn't know and feared the worst.

Thanks to Eldon S. Kearl, KB7OGM, one of the key men in our ERRS system, he was able to whip out a little handheld radio and in moments we had a reliable contact with the Storehouse Manager at Colton, CA. The Manager was able to report the Colton Radio Facility had not been damaged but that none of the radio operators had shown up. He was unsure of their status. Here again Eldon using the DARS/Cactus system was able to track down the radio personnel at their home QTH's and establish that they would soon be at the Colton Radio facility. This was especially important to us in Salt Lake. The DARS/Cactus Intertie System really saved our "bacon".

I had heard bits and pieces about the DARS/Cactus System but never knew exactly how it worked. It was quite a surprise to me to see the system used to pull our ERRS out of a tight spot.

I have been in Military & Commercial Radio since 1934, but I don't think I have ever been more impressed with a radio System which does a job like DARS/Cactus Intertie. Back in the old days ---who would have thought they would put repeaters on mountain tops and link them together? Truly wonderful!

So once again thanks and we trust you will pass along our thanks & appreciation to all those great folks who have made the Cactus Intertie possible. We know it has taken a lot of dedication and hard work to make the system work.

73

Bill Fahey K7FY